Suppl. Fig. 1 Typical population dynamics obtained from model (2). Both bacteria initially grow exponentially, until *Duganella* sp. growth declines due to lytic phage infections and *Curvibacter* sp. growth slows down due to depletion of nutrients, respectively. The vertical dashed line at $t = t_{exp}$ indicates the end of the exponential growth phase, defined as the time when *Curvibacter* sp. growth ceases. *Duganella* sp. density approaches 0 after about 20 hours due to continued phage infections. Parameters values for this example: $N_0 = 100$, $B_0 = 10^5$, $f_0 = 0.5$, $P_0 = 10^3$, $c = 10^{-5}$, $r_C = 0.125$, $r_D = 0.4$, $H = 0.05$, $\phi = 10^{-8}$, $\beta = 50$, $m = 0.25$, $p = 0.05$.